THE

LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNÂ."

SATURDAY, SEPTEMBER 15, 1883.

Original.

CHOLERA: ITS WINTER ASPECTS—THE LAWS REGULATING THE CAUSE.

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To the numerous inquiries that have been very sensibly and honestly made upon the subject of these papers, I shall endeavor to speak as intelligibly as may be in my power. I preface the first of these inquiries with an account of what occurred in the lecture-room during my first course of lectures. I had already introduced some facts bearing upon the cause of the disease in the lecture of the day before. When I entered the room I found lying upon my desk this question: "You say that the cause of cholera is solar temperature of a high and persistent degree, vegetable decompositions, and moisture. Will you please to account for the fact that it raged in Montreal when the snow was eight feet deep?" The pertinence of the question was at once admitted, but I said that I would not be caught as the Royal Society of England was by Charles II. By virtue of his sovereignty he was president of the society. At one of its meetings he propounded the problem, "Why is it, that if you place a fish of several pounds weight in a tub of water, the tub of water does not weigh any more after the fish is placed in it than it did before?" "At the next meeting of the society Charles was present, and occupied the chair. Several ingenious papers were read, in which attempts were made to solve the problem. After listening to these learned essays, the King asked whether any of the members had experimented with the fish and the tub of water, in order to ascertain whether there was any truth in the statement of the problem." No one of them had paused to think of that. They had gone prancing after lights as false and bewildering as those of Saint Elmo, as Hoole says:

> "And sudden breaking on their raptured sight
> Appeared the splendor of Saint Elmo's light."

The experiment had not been made. There was not an element of truth in the King's problem, and the "science," falsely so called, that attempted to account for the impossible was all thrown away. I stated that nothing of the kind had occurred at Montreal. There might have been a very few cases under the law of latency. But the inquirer was asked why he used such a large word as raged for a few cases, and so cut himself off from its employment when it might be proper to use it.

But I proceed to pay my respects to this feature of the question. The law is that it is a hot-weather disease. It appears in hot climates; and, in nine thousand nine hundred and ninety-nine cases out of every ten thousand endemics of cholera, they have appeared in hot weather. The observation has been well nigh universal that cold weather puts an end to it. For example, one instance in hundreds: In December, 1848, in New Orleans, the solar temperature was very high and exhausting. The ravages of cholera were dreadful, and they continued until the 20th of January, 1849, when a change to severe cold weather arrested the progress of the endemic. This has been uniformly noticed all over the world. Now, that which arrests the action of a cause can have nothing to do with its creation. Let us look at that history which Bolingbroke well and truly says is philosophy teaching by example. In 1748, Bethlehem, in Connecticut, was celebrated among the colonies for its healthiness and its schools. Nearly all the colonies sent pupils to the schools. Bethlehem has three valleys running through it

from north to south, and a stream runs through each valley. The soil is very fertile. A man built a dam across these streams in order to flood fifty acres of land, to deaden the timber on his land. In the spring of 1750 he broke down the dam, exposing an immense surface of decomposed and decomposing vegetable material of a moist character to the action of the sun. A frightful pestilence of intermittent and remittent fever soon showed its ravaging qualities. It carried off a number of the inhabitants. The children were speedily removed from the scenes of the disaster. But little was then known, even among physicians, of the potential cause of this disaster. The name of Lancisi, who developed the powers of this noxious agent in 1717, had never traveled to Bethlehem in 1750, and the people were utterly ignorant of the source of the evil. The sun dried up the marsh, the land was cultivated, and health resumed its sway. In 1760 a similar damming was resorted to, and was broken down in November of that year, just in the verge of cold weather. Another pestilence began in November, and carried off forty of the most robust of the inhabitants. That taught a lesson that has lasted until now.

Now these were specific fevers, from a specific cause. Nothing of the kind was ever known at Bethlehem prior to 1750. From that time to 1760 nothing similar to it was known at Bethlehem. Inasmuch as these specific forms of intermittant and remittent fever were developed there in 1750 and 1760, and were of the same character as those developed annually in the Campagni di Roma, and in many other parts of the world, they were of necessity from the same cause.

In the Campagni di Roma, the cause has been daily in its action for centuries; but it never was at Bethlehem until 1750, and then the reason for its presence there is obvious. The exposure of a mass of decomposing vegetable material, moist in its character, to the action of the sun in high and persistent hot weather has been recognized as a fruitful source of endemic disease wherever these elements are found existing together. But one of the outbreaks at Bethlehem was in cold weather; it was, however, analogous in its character to the former outbreak in hot weather. This one in cold weather, though very fatal to those attacked, was less extensive than the first endemic in hot weather, because the cold weather soon put an end to the cause.

A number of those cases in November were from latency, which has been fully explained in the former articles on cholera, and they were of course as fatal as the early cases. When a disease, the cause of which is produced in hot weather, occurs in cold weather, which is a very rare event, it will be found that it takes place in a climate where the transition from hot to cold weather is sudden. The cause, incubating during the hot weather in such circumstances, may not break into activity until cold weather suddenly appears.

The British army encamped below New Orleans, in 1814, which made the attack on Jackson's forces suffered one of the most terrific defeats ever inflicted on a British army. It was perfectly disastrous. As we look over the returns of the killed, wounded, and prisoners, we are appalled at the results. But in the conflict of the eighth of January Jackson lost but seven men.

In turning to the report of the Medical Director of the British army, Dr. Robinson, we find a report of continued disaster to the British army from an unseen enemy that sprang into being from the marshes of the Mississippi. An endemic dysentery, beginning in Louisiana, hung about the British forces until they were distributed to the British possessions in the Atlantic, and, in a large number of instances, persisted in its attacks until the arrival of the troops at home. It was nearly if not quite as destructive to life as the artillery powers used by Jackson. In all cases of this character the cause *acquired* in hot weather is *exhibited* in cold weather.

One of the great physicians of South Carolina, in the early part of this century, was Dr. Davis, of Columbia. In November, and into the winter, he found cases of intermittent and remittent fever exclusively in localities that were visited by autumnal fever during the preceding fall.

Dr. Trent, of Richmond, Virginia, bears testimony to the same state of facts for Richmond, in 1815.

In 1814 there were severe attacks of intermittent and remittent fever in Fauquier County, but they all occurred about Woodsides' Marsh, which had been visited severely in the fall.

In 1822, at Winchester, Virginia, there were frequent attacks of fever in winter, but they followed a severe endemic in the fall.

In 1823 the fall at Winchester was healthy, so was the winter.

In 1824 the fall was sickly at Winchester, and so was the winter.

In 1825 the autumnal months at Winchester were sickly, and so of the months of December and January.

In 1797 Philadelphia was scourged with yellow fever; cases continued to occur throughout the winter. In 1794 there was yellow fever in the autumn, and cases, clear and fatal cases, of yellow fever were seen in November, December, and January. In 1799, after severe yellow fever in the autumn, in Philadelphia, some cases of a fatal character were seen in January.

Cleghorn's work on the Diseases of Minorca is deservedly one of the classics of British medicine. There are few books more alive with facts of the very best character than this. Dr. Fothergill, one of the first physicians of his day, said of this book, "It is a model for future medical writers." Over a hundred years ago he described the fearful fevers of Minorca, and was bewildered with the fact that he found severe cases in the depth of winter. He was sensible that the cases were due to a cause produced in hot weather, but was unable to account for their appearance in winter. He was not acquainted with that great feature of the cause of these diseases, latency, and was bewildered by it. He who is unacquainted with it is deficient in a knowledge of one of the principal and most constant attributes of this poison.

Dr. Miller, an eminent physician in the past century in the city of New York, who was one of the most learned and accurate men of his day in his knowledge of yellow fever and of its cause, was greatly bewildered when he met a case of yellow fever in February. He knew that the man had been in the locality the preceding fall that engendered the yellow fever extensively, but it was difficult to account for the cause being carried through November, December, and January, into February before it awakened into activity, and that this should then be fatal.

James Johnson, one of the most deservedly renowned men that ever graced the editorial chair of medical journalism, and one of the most graceful writers that ever adorned medical literature, records a fact in yellow fever that should be very deeply imprinted upon every mind, not only every medical mind, but upon every form of intelligent mind.

I have ever been delighted with Saint Augustine's vivid description of a scene in a Roman theater. At the first performance of one of the plays of Terence, when for the first time there burst upon the Roman mind the sublime sentiment of Terence, "I am a man, and nothing that relates to man can be foreign to my bosom," Saint Augustine says, "the immense auditory arose as one person; it electrified every heart, and loud and tumultuous cheering greeted the living sentiment that had been breathed into it." So I feel about certain vitalities in my profession, and this is one of its cherished possessions. No matter where any one may be, at home or abroad, on land or the sea, the great truths connected with this law of latency in this poison should be carried in a wallet of the memory from which it may be drawn when needed. But more of this directly.

To return to the observation of Dr. James Johnson: He says that a green regiment, that is, one unacclimated, arrived from England, and was landed at Calcutta. A high solar temperature was prevailing then at Pondicherry. The Governor General ordered the regiment to be transferred to Pondicherry. The medical officers at Calcutta, experienced in Indian affairs, pleaded with the Governor General to change that order. Pondicherry was then on the eve of its regular return of yellow fever, and he was assured that if this regiment were sent there it would be destroyed. He did not heed this salutary warning, and the regiment was sent. Within three weeks after the Governor General found, from the medical reports transmitted to him, that one half the regiment were either dead or in the hospital on a rapid march to their graves. He was awakened at last to his duty. He gave the order for the transfer of the invalid regiment from Pondicherry to Nain, a sanitarium up in the Himalayan region, where the acquisition of malarial disease is unknown. A barracks at Nain received orders to prepare for the suffering regiment. One half of the barracks was thoroughly cleansed for its reception. Now, what occurred? During four months the men at Nain and the invalid soldiers messed together, drilled together, and were in unison in their general enjoyments; but the men from Pondicherry continued to develop yellow fever throughout a period of four months. As they acquired the fatal poison at Pondicherry, and the soldiers died there, the disease continued to develop this fatal form at Nain, for, be it remembered, that the type of disease acquired at any locality, whether it be intermittent or remit-

tent fever, cholera, yellow fever or dysentery, will be developed in that form under this law of latency, no matter how long the period of latency may be. There are endemics of yellow fever, called walking cases of yellow fever, which are essentially fatal, although the victim may seem to have nothing the matter with him. If the poison is acquired in such a locality, no matter how long it may be carried in a latent form, it will develop in that form of disease that was predominant in that locality. There are many cases of it that are apoplectic; if the poison is acquired in a locality of that kind that will be the outburst of the latency, no matter when it may come. And in view of these truths, can any one be surprised that I am desirous of impressing this great truth upon my readers? The life of every soldier transferred from Pondicherry who died from yellow fever could and would have been saved from that death by the salts of Peruvian bark, carried to cinchonism before the latency became active; after that, scarcely any hope may be indulged for any remedial measure. In cholera there is no ground for hope.

The demonstration is complete, I think, that intermittent, remittent, and yellow fever may appear in winter. Should it be incredible, then, that cholera, springing from a kindred cause, may, under circumstances well understood and perfectly obvious, appear in wintry weather? But let this be very usefully remembered: In no instance known to me has any endemic cholera appeared in wintry weather in this country. The laws of its existence require a high and persistent solar temperature, moist vegetable decompositions; and, when there is an apparent departure from those laws, we should endeavor to know what has caused the apparent aberration instead of flying into space on a bootless search. Our reasoning faculties were given us to use, at least in emergencies not to lay aside or discard.

The laws of this curious poison are clear and well pronounced. In its lowest or mildest form, it is never made under a daily mean of solar temperature of less than 60°; in no instance has 59.75° ever been known to manufacture it. Abundant observations establish this as a fixed immutable law. The surface of the ground may be dry, but water may lurk beneath it with ruinous consequences to the inhabitants, an observation based upon thousands of occurrences, one of which we gave in connection with the catastrophe on Market Street, between Tenth and Eleventh streets, in 1850. The poison manufactured at the surface of the ground is evidently heavier than the atmosphere, because, though it may wander over a very extensive surface, it can not rise far above the surface, or, as Hennen says, in his great work on the "Medical Topography of the Mediterranean," it can not walk up-stairs; but let it be well borne in mind, as inducive to cleanliness and conducive to health, damp filth in the upper rooms of a house may engender the poison in those upper rooms. This is a rare occurrence, but as it has happened it may happen again. The poison always acts after sunset; hence the necessary care then. The direction of the night wind toward sleeping apartments on the ground floors must be known in order to determine whether there is danger or security. Roman laws require that the gates on the western side of the city, next the Campagni di Roma, and the doors and windows on that side of the city shall be closed before sunset. If the night wind were across Rome westward, over the Pontine marshes, this precaution would be unnecessary. I speak of the ground floors. In an observation of fifty-one years, I have never known a single deviation from the fact, that while the ground floors are the scenes of the attacks of cholera the upper rooms are exempt. If there were any exceptions to this rule, under my observation, I should unhesitatingly mention it, because my object is to instruct in truth, and I will utter nothing of a theoretical character without mentioning that that is the nature of the remarks. Surely, an experience of fifty-one years in wrestling with this disease, and a thorough reading of every account of it worth studying, have entitled me to speak understandingly on this important point. In the severest cholera outbreak that can take place, those who sleep in the upper rooms of good houses are exempt, while the sleepers on the ground floors are attacked. I have seen so many hundred instances of this truth, that I should as soon doubt that twice two are four as that I should feel any dubiety about this great preservative principle.

When cholera invaded St. Petersburg, in Russia, a company of French players were running the theater. It was immediately closed. The French company consisted of fifty members. The company divided, twenty-five remaining in St. Petersburg and twenty-five going over to an island in the Neva, opposite the city. Those who remained in St. Petersburg all died of cholera; those

who went to the island all escaped. This island has a hedge of living evergreens entirely around it to guard the inhabitants against intermittent and remittent fevers. It proved to be equally effectual in preserving them from cholera. There was not a case of it on the island. The reader will remember the instance I gave in the sketch of cholera in Louisville, of the preservative power of living vegetation in guarding a family who had no other protection, while their immediate neighbors suffered from the disease. With an intimate acquaintance with all the facts of the cases, I do not know of any thing but this living vegetation that protected this family. If space permitted, I could name many villages of India that have ever been protected from cholera by this means, while those without it were assailed. I have already shown how conspicuously the law of the latency of the poison shows itself in attacks of cholera, and the protective power of the salts of Peruvian bark in preventing this latency from becoming active. This power of Peruvian bark is potent in all cases in preventing the poison of malaria from manifesting itself, and upon that single fact I should be willing to rest the question of the malarial origin of any disease that thus benignly responds to the influence of Peruvian bark. For a long period of time, fully two centuries, the death-rate in the British navy was one in every eight. Various means were resorted to for the purpose of changing this frightful mortality, but the evil persisted. At length the Admiralty of Great Britain were awakened to the fact that they were dealing with a foe, a silent, invisible enemy, much more potent than any they met in the ranks of their recognized foemen. The army returns showed, conclusively showed, that this invisible enemy destroyed many more men than any of the recognized casualties of war. It was found that the boat-crews who were sent to islands or on shore for wood and water did not return; and, upon searching into the cause of the failure, it was discovered that every one of them had died during the night. The meaning of this finally became obvious, and peremptory orders were given, prohibiting any boat-crew from being permitted to remain on land in any tropical or equatorial climate at night. But a still more useful provision was made, by which a vessel can not get its clearance papers until satisfactory proof is furnished that it has an ample supply of the salts of Peruvian bark to administer a dose every day, upon approaching tropical latitudes, to every person on board the vessel. No boat is permitted to ascend African rivers, for example, without this precaution. Under these regulations and those akin to them, the death-rate now in the British Navy is 1 in 72 instead of 1 in 8. The British Navy has, for a number of years, owed its potency in a great measure to the prophylactic powers of the Peruvian bark.

The greatest exposure during the day, in the most virulent form of this poison, does not, can not imperil the health of any person. It exerts its power after sunset. Hence the reason why the attacks are at night. The fact is susceptible of clear demonstration that, in at least ninety-five in every hundred cases of yellow fever, the attacks are in the night. The night-seizures in cholera are fully in this proportion. Another very important fact connected with this feature of this poison is, that exposure during the night is not baleful if a person moves about. We have this conspicuously displayed in the history of the Pontine marshes. No one, during the past three hundred years, ever slept a single night there without dying. But there are farms in these marshes that are worked. The owners of the land hire the neighboring mountaineers to prepare the land and put in the crops. But these healthy mountaineers well know the certainty of death if they sleep at night; for this reason they keep in motion during the night, working on the farms when they have the light of the moon, and sleeping during the day. These occurrences have been under observation for centuries, and have made this an immaculate truth, that there is no danger, in the worst locality, except to the night-sleeper. Instances have been noticed, in which tired, weary men, worn out by the heat of the day and their labors, have lain down to rest by the side of some of the ditches in the Pontine marshes, have fallen asleep, and in fifteen minutes have been found by their comrades cold and stiff in death. The fact which I am endeavoring to enforce was abundantly confirmed in the history of the Maremma di Lucca. For more than three hundred years, that fair and fertile region was deserted by all its inhabitants from the latter part of June until the latter part of October, or sometimes into November. Their crops and property were left in the custody of watchmen! They walked about at night in a stratum of air that was innoxious to them while they kept awake, but which would have been fatal to their health or lives if they had slept in it.

These watchmen slept in the hours allotted to their sleep, in watch-towers erected for them, which were so much elevated above the ground surface that they could sleep in them at night without danger. These facts are consonant with universal experience. The skilled florist can go into a garden and tell the name of every flower by the marks that designate its species. This poison is specific; it has attributes, as such, that distinguish it from every thing else, and there is no one of its marks that designates its presence more certainly than its night-power upon the sleeper. I have often confirmed its truth in my own experience. I have spent three weeks, at night, in a locality of the most virulent form of cholera poison, without being touched by it. I escaped by not sleeping in the locality at night. All the great masters of our profession, such men as Miller, of New York city, Davidge and Potter, of Maryland, Caldwell, Devese, Rush, Merrill, Simmons, of South Carolina, and Rush and Reese, and Carr, author of the "Stranger in Spain," amply confirm its truth.

In a very sensible note, which was received a few days since, I am asked for an explanation of the fact that this poison attacks only the person who sleeps in its presence at night. I wish it were possible to give a satisfactory explanation. Nature has wisely provided a safeguard for us in this wakefulness, and it has preserved the lives of many myriads, but how it does it we do not know. We must be contented with the fact that it does save us, without being able to explain the reason why. Of the truth, that wakefulness in this noxious night air saves us, there is no more room for doubting than that the usual color of the rose is red, and that a blue dahlia is one of the impossibilities of floral art. Let us remember and profit by that which we know in this great field of human interest.

Dowden says pertinently and truly, in his "Critical Study of Shakespeare's Mind," a man does not attain to the universal by abandoning the particular, nor to the everlasting by an endeavor to overleap the limitation of time and space. We do not know a great deal about Shakespeare, that is, there is an immense deal about him of which we know nothing, but it is a matter of grief that his great life was cut off by the poison whose multiform aspects we have endeavored to survey in this series of papers.

Mr. Halliwell shows, by an extract from the corporation books of Stratford on Avon, that Shakespeare died from a malarial fever brought on by the filthy condition of Chapel Lane, adjoining his residence. It is sorrowful, grievous to humanity to think that two such prolific lives as those of Shakespeare and Cromwell might have been prolonged, greatly to the benefit of mankind, by the magic powers of the salts of Peruvian bark, and that no one then knew how to do it.

LOUISVILLE, KY.

Miscellany.

AMERICAN DEGREES.—An American Graduate and British Licentiate in Medicine writes, in the Lancet: Your correspondent, "a British practitioner resident in the States," appears to have an object in discrediting medical education in America. He is certainly in error when he says that "there is not a single institution in America that grants degrees equal to any diploma obtained from a British Corporation," for it is quite possible in Great Britain to obtain a license to practice medicine without undergoing any examination whatever in surgery (and I know several holders of the L. S. A. and L. A. H. who not only practice surgery, but style themselves surgeons and M. D.'s), while in all the American colleges it is a *sine quâ non* that every candidate shall pass satisfactorily in the seven subjects —anatomy, physiology, chemistry, materia medica and therapeutics, medicine, surgery, and midwifery. It is true that there is no compulsory examination in general education at some of the schools, and that the minimum time required by the law to be spent in medical study is but three years, but he forgets, at the same time, to state that the average age of the American medical student is greater than that of the British, and that a very large number of them are men who have for years been teachers in schools, and who, by their own exertions as such, have saved the means wherewith to qualify themselves as physicians; hence, there is not the same necessity for an examination in general knowledge. It is also an undoubted fact that the American medical student is, during his course of study, a much harder worker than the British, most of the colleges keeping their dissecting-rooms open till ten o'clock at night, while the professor of each subject holds an examination of his class at least once a week. It is also com-

pulsory on students to attend at least two full courses of lectures on each subject, and although their attendance is not registered, yet, as a matter of fact, based upon an experience of the medical schools of both countries, I am able to state that the lectures are much better attended than at any medical school at which I have been in London. In conclusion, I might ask, "Is it a fact that the average British practitioner of either medicine or surgery is in advance of his American *confrère?*"

A POLLUTED SPA.—A curious instance has just been brought to light of the contamination with sewage-matter of a well that has long enjoyed a high reputation for its salutary virtues. (British Medical Journal.) Brow Well, in a small village on the shores of Solway Firth, is where the great national poet, Burns, by the advice of his medical attendant, spent the last fortnight of his life in a despairing effort to repair his shattered health. Professor Dewar's analysis shows the water to be of an unique description, and suggests that it may have valuable medicinal properties; but, at the same time, it reveals the fact that it is strongly tinctured with sewage. It seems probable that the drainage from the adjoining cottages and pig-sties, and from the heavily manured lands in the neighborhood, finds its way into the well. Professor Dewar thinks that it ought to be closed, in the interests of the community, until means can be taken to insure its purification. Large numbers of invalids resort to it at this season of the year, and drink freely of the water, of which the regulation quantity is *six pints per diem.*

DRINKING-WATER.—"My experiments," says Mr. Kingzett (British Medical Journal) "showed that it is possible to introduce fifty fluid grains of a putrid extract into a gallon of chemically pure water without taking it out of Dr. Tidy's class of 'waters of great organic purity.' Similarly, one hundred and seventy fluid grains could be introduced with the result of obtaining a water of 'medium purity,' and two hundred and fifty-five fluid grains would only make the water of 'doubtful purity.' The putrid extract here referred to was swarming with organisms, and doubtless contained sepsin, which Dr. Burdon Sanderson has proved to be a blood-poison. In the face of these facts, what reliance can be placed upon the oxygen progress of water-analysis? Having asked the question, I will also answer it by saying, None. Physiologically, Dr. Thorne Thorne, in his inquiry at Caterham, demonstrates irrefutably that a relatively minute pollution of enormous bulks of water with specific organisms — such as no chemical analysis, however delicate, could pretend even qualitatively to detect—is capable of imparting deadly qualities to the water-supply of a large district, and of diffusing enteric disease throughout a whole population."

WE have been honored by the following invitation. May this venerable and noble school, of which all Americans are proud, ever receive the patronage it deserves.

Dr. Lunsford P. Yandell:

The Medical Faculty of Harvard University request the pleasure of your company at the celebration of the One Hundredth Anniversary of the Medical School, and the dedication of its new building, Wednesday, October 17, 1883, at 11 A.M., at Huntington Hall, Massachusetts Institute of Technology, Boston.

R. S. V. P.

The programme is as follows: Address by the President of the University; Oration by Emeritus Professor Oliver Wendell Holmes; Presentation of a Portrait of Professor Holmes and a Bust of Professor Henry J. Bigelow; Prayer by Rev. A. P. Peabody, D. D.; Dedication of the new Building to the purposes of medical instruction; Reception of Subscribers to the building-fund, and invited Guests, by the Medical Faculty; Exhibition of the building. Lunch will be served from 1 to 2.

IMPURE ICE.—It is still a popular fiction that impurities in some way separate from water as it freezes into ice, and that water-ice, as ice, must of necessity be pure, whatever the impurities of its source. (British Medical Journal.) Of course, this is not so. Ice not only includes all the suspended or dissolved impurities of the water from which it is derived, but it also probably perpetuates the vitality and activity of certain organisms which it may contain, by preserving them from decomposition. In *hard winters a great deal of impure ice is collected from many questionable sources*, and is sold and used for domestic purposes. None but ice of indisputable purity can be safely swallowed. We are afraid that large quantities of dangerously impure ice are distributed to the public by itinerant venders of cheap ices, who, in warm weather, seem to drive a thriving trade in our streets.

TRICHLORIDE OF PHENOL.—This substance, which has been experimented upon by Dr. Dianin, and described by him in the *St. Petersburger Medicinische Wochenschrift*, is prepared by mixing carbolic acid and chloride of lime. (British Medical Journal.) Its antiseptic properties are said to be more active than those of any other substance used in medicine (twenty-five times more so than carbolic acid), and a small quantity stops fermentation. It is not only an antiseptic, but also a deodorizer, while its own smell may be disguised by oil of lavender. Dissolved in water, it does not cause irritation. Dr. Dianin recommends the use of trichloride of phenol in cases of soft chancre, diphtheria, and other gangrenous affections. Its sodium and calcium salts also exhibit antiseptic properties; the former has no smell, and the latter is cheaper than phenol.

TOBACCO-SMOKING NATIONS.—A statistical comparison, recently published, showing the relative extent to which various nations are addicted to the use of tobacco, gives the proportions as follows: For England, France, and Russia, five; for Italy, seven; for Cuba, eleven; for Austria, fourteen; for Germany and North America, fifteen; for Belgium, twenty-four; for Holland, twenty-eight. Mexico, however, even surpasses Holland, for there every one is a smoker. The school-children who have done best in their studies are rewarded by being allowed to smoke a cigar as they stand or sit at their lessons. The schoolmaster himself is seldom without a cigar in his mouth. In the law courts all persons commonly enjoy their tobacco freely, and even the accused in a criminal trial is not denied this indulgence.

QUARANTINE IN EXCESS.—A German merchant, a few days ago, received a telegram from Damietta. Noticing that it had been detained twenty-four hours, he made inquiries, when he was told that the telegram came from a cholera-stricken district, and they were compelled to disinfect it according to the regulations of the authorities!

HIGH DEATH-RATE OF ST. PETERSBURG.—The annual death-rate is over fifty-one per thousand. This excessive mortality may be largely accounted for by the quality of the water supplied to the inhabitants. Louisville's annual death-rate is only seventeen per thousand.

TRI-STATE MEDICAL SOCIETY.—The Committee of Arrangements of the Tri-State Medical Society, which meets in Indianapolis, September 17th, desire physicians coming over the J. M. & I., Indianapolis & Vincennes, Cinn., I., St. L. & C., to write immediately to Dr. T. B. Harvey, Indianapolis, for certificates entitling them to purchase round-trip tickets over said roads at reduced rates. Be careful to mention names of roads over which they come.

Those coming over the Ft. Wayne, Cinn. & Louisville, Cinn., Wabash & Michigan, and Evansville & Terre Haute, can secure round-trip tickets without certificates.

Delegates coming over the C. C. C. & I., Vandalia, C., H. & D., and I. P. & C., will receive certificates at the association for return tickets at reduced rates.

IODIA AND BROMIDIA have become widely popular medicines, and are indorsed by some of the best men in the land—iodia as an alterative, bromidia as a nervous sedative and hypnotic.

Cocalac, a combination of coca and the cereal lacto-phosphoids, is claimed to stimulate without reaction. In nervous exhaustion from any cause, and in the distressing depression following excesses in coffee, tobacco, and alcohol, cocalac should give great comfort. These remedies are produced by the well-known chemists, Battle & Co., St. Louis.

A CASE of death from a wasp sting has just occurred in the person of Miss Arkwright, aged fifty-five, of Mark Hall, near Harlow, who died within half an hour after receiving the sting on her little finger. (Medical Times and Gazette.) At the inquest it was stated that she fainted almost immediately after being stung, and never recovered consciousness. Dr. Day deposed that death ensued from syncope, produced from excessive pain caused by the wasp-sting.

A MEDICAL ATTENDANT'S BILL.—"I understood you to say that your charges would be light," complained a patient when his doctor handed him a tremendous bill. "I believe I said my fees would be nominal," was the reply; "but—." "Oh, I see," interrupted the patient, "*phe*nomenal!"

NOUNS or names are the subject of thought; all other parts of speech are the mere setting in which nouns are placed.—*Dr. Broadbent.*

THE BEEF PEPTONOIDS of Reed and Carnrick, made only from the nutritious portions of the beef, and composed of albumen, fibrin and pure gluten, constitute a noble constructive, and a most delightful as well as efficient upbuilder of shattered health. In dysentery and diarrhea, and in convalescence from any malady, the beef peptonoids may be employed with marked advantage.

INTRA-PERITONEAL INJECTIONS OF ALBUMINATE OF IRON IN CHRONIC ANEMIA.—Professor Vachetta has injected into the peritoneal cavity of dogs a solution of two grams of citro-ammoniated albuminate of iron in five cubic centimeters of water. The fluid was quickly absorbed, and never caused peritonitis. Twenty-four hours after the injection traces of iron were detected in the urine. The quantity of hemoglobin and the number of red corpuscles in the blood were soon increased; and Professor Vachetta says that injections of the iron solution into the peritoneal cavity have the same effect in chronic anemia as injections of blood, while they are less difficult and less dangerous.—*British Medical Journal.*

THE DISEASES OF MONKEYS.—Mr. J. B. Sutton, in the Lancet, August 18th, enumerates the following as causes of death in captive monkeys: Tubercle, bronchitis, pneumonia, empyema, septic pneumonia, rickets, scrofula, typhoid fever, and intussusception; many also suffer from cataract. I have a uterus, taken from a baboon, with acute retroflexion of the fundus associated with atrophy of its anterior wall. Hydatids of the peritoneum were found in two instances, but were not the direct cause of death.

THE USEFULNESS OF DRUGS.—It may be said with safety and literal truth that drugs never played a more important part than they do now, that they never did so much good and so little harm as in the present practice of medicine. (Lancet.) Let one month be imagined in London without chloroform, opium, atropine, quinine, iron, salicin and its compounds, carbolic acid, iodide of potassium, ammonia, without common laxatives or cod-liver oil, and suffering and death would be immensely increased.

CRAMP.—Surgeon Robert Manners Mann writes, in the British Medical Journal: There is no remedy I have found to answer, except the raising the head of the bed. I cause two bricks to be placed under each leg, or a block of wood of the same thickness as two bricks. Patients who have suffered at night, crying loudly with pain, have found the above plan an immediate, certain, and permanent relief.

JAMAICA DOGWOOD.—The fluid extract of Jamaica dogwood has an agreeable ethereal smell, a pleasant taste, and becomes milky on the addition of water. It is said to be a powerful anodyne and one of the best remedies for neuralgia. (Lancet.) In many instances it is reported to have relieved pain and insured sleep after the failure of opium, chloral, and many other remedies. We have taken it in full doses, and have used it largely clinically. It is sometimes useful, but it is not likely to supersede opium, at all events not at present.

EXTIRPATION OF THE GALL-BLADDER.—Langenbeck (Berlin) had made this operation three times, on account of trouble set up by calculi. He showed his third case to the Congress—a female patient, thirty-four years of age. She had suffered to such an extent that she had been compelled to give up work. Recovery was prompt, and the woman is now about her work as usual. He recommended the operation in such cases, not because the gall-bladder *contained* a mass of concretions, but because it *gave rise to them*—that is, originated the trouble. *Annals of Anatomy and Surgery.*

THE LIQUOR TRADE AND ITS PROFITS.—A publican, a witness in a case recently heard at Preston, said the profit on spirits was about 100 per cent; and another, who had been in the trade all his life, stated that for an expenditure of £100 there ought to be a return of £200, for, after rent, rates, and taxes were paid, there should be a net profit left of 40 or 50 per cent.—*Medical Times and Gazette.*

ARMY MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, U. S. A., from September 1, 1883, to September 8, 1883.

Shufeldt, Robert W., Captain and Assistant Surgeon, granted leave of absence for three months on Surgeon's certificate of disability, with permission to leave the Deparment of the South. (Par. 3, S.O. 204, A.G.O., September 5, 1883.) *Wakeman, W. J.*, First Lieutenant and Assistant Surgeon, assigned to temporary duty at Fort Sidney, Nebraska. (Par. 2, S. O. 92, Department of the Platte, August 28, 1883.)

The Louisville Medical News.

Vol. XVI. SATURDAY, SEPT. 15, 1883. No. 11.

LUNSFORD P. YANDELL, M.D., - - }
H. A. COTTELL, M.D., - - - - - - } Editors.

A journal of Medicine, Surgery, and the Allied Sciences, published every Saturday. Price $3.00 a year in advance, postage paid.

This journal is conducted in the interests of no school, society, or clique, but is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the Journal, should be addressed to the EDITORS OF THE LOUISVILLE MEDICAL NEWS, LOUISVILLE, KY.

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THOMAS CARLYLE.

"Winds blow and waters roll
Strength to the brave."

So writes he whose liver and stomach are unwrung by the demon of dyspepsia.

Buoyancy and bravery belong to health; and to him whose hepatic secretions flow smoothly on in their proper channel, disturbed neither by drought nor by flood, and whose gastric juices, like the gentle dew, do their labor in silence without trouble of foul winds and sour seas — lofty sentiments, philosophic thoughts, and noble utterances are natural. But fine words do the sick man little good, and indeed often seem rather to mock him.

The following extracts are from the writings of one who intimately knew dyspepsia, apepsia, and all digestive derangements; and many a reader as he ponders these strong words of Carlyle will recognize a master's picture of his own sufferings and longings and lamentations:

. . . Bad health does indeed depress and undermine one more than all other calamities put together.

. . . Virtue *is* its own reward, but in a very different sense than you suppose, Dr. Gowkthrapple. The *pleasure* it brings! Had you ever a diseased liver? I will maintain, and appeal to all competent judges, that no evil conscience, with a good nervous system, ever caused a tenth part of the misery that a bad nervous system, conjoined with the best conscience in nature, will always produce. What follows, then? Pay off your moralist, and hire two apothecaries and two cooks.

. . . With stupidity and sound digestion man may front much. But what, in these dull, imaginative days, are the terrors of conscience to the diseases of the liver! Not on morality, but on cookery let us build our stronghold. Then, brandishing our frying-pan as censer, let us offer sweet incense to the Devil, and lie at ease on the fat things *he* has provided for his elect!

. . . So had it lasted, as in bitter, protracted death-agony, through long years. The heart within me, unvisited by any heavenly dew-drop, was smoldering in sulphurous slow-consuming fire. Having no hope, neither had I any definite fear, were it of man or devil; nay, I often felt as if it might be solacing could the arch-devil himself, though in Tartarean terrors, but rise to me, that I might tell him a little of my mind. And yet, strangely enough, I lived in a continual indefinite pining fear; tremulous, pusillanimous apprehension of I knew not what. It seemed as if all things in the heavens above and the earth beneath would hurt me; as if the heavens and the earth were but boundless jaws of a devouring monster, wherein I, palpitating, waited to be devoured.

. . . My condition is rather strange at present. I feel as if I were impelled to write; as if I had also very little power to do so; but at the same time as if I had altogether lost the faculty of exerting that power. It is these "coorsed nervous disorders." If I had but strong health! But what is the use of talking? If I had a supereminent genius, the end would be still better attained, and the wish is perhaps just about as reasonable. Should I never be healthy again, it will not aid me to complain, to sit and whine, "put finger in the eye and sob," because my longings are not gratified. Better to do what I can while it is called to-day; and if the edifice I create be but a dog-hutch, it is more honorable to have built a dog-hutch than to have dreamed of building a palace.

. . . I believe this is about the first compliment (most slender as it is) that ever was paid me by a person who could have no interest in hoodwinking me. I am very weak. It kept me cheerful for an hour. Even yet I sometimes feel it. Certainly no one ever wrote with such tremendous difficulty as I do. Shall I ever learn to write with ease?

. . . Now, my best friend, are you sure that you have ever formed to yourself a true picture of me and my circumstances; of a man who has spent seven long years in *incessant* torture, till his heart and head are alike darkened and blasted, and who sees no outlet from this state but in a total alteration of the purposes and exertions which brought it on?

. . . I am all in a maze, scarce knowing the right hand from the left in the path I have to walk. I am still insufficiently supplied with sleep; no wonder, therefore, that my sky should be tinged with gloom.

. . . "My whole life has been a continual nightmare, and my awakening will be in hell.—TIECK."

. . . "There is just one man unhappy: he who is possessed by some idea which he can not convert into action, or still more, which restrains or withdraws him from action.—GOETHE."

. . . I *must* have a house of my own (a bit haddin o' my ain ——), where I can enjoy quiet and free air, and have liberty to do as I list.

Having gotten into his own house, he writes:

Here there is no grumbling about my habitudes and whims. If I choose to dine on fire and brimstone, they will cook it for me to their best skill, thinking only that I am an unintelligible mortal.

. . . Surely there is something obstinately stupid in the heart of man, or the flight of three-score years and the poor joys or poorer cares of this our pilgrimage would never move one as they do. Why do we fret and murmur and toil and consume ourselves for objects so transient and frail?

. . . As to fame and all that, I see it already to be nothing better than a meteor, a will-o'-the-wisp which leads one on through quagmires and pitfalls to catch an object which, when we have caught it, turns out to be nothing.

. . . A French author, D'Alembert (one of the few persons who deserve the honorable epithet of honest man), whom I was lately reading, remarks that one who devoted his life to learning ought to carry for his motto, "Liberty, Truth, Poverty," for he that fears the latter can never have the former.

MARTIN MEYER, JR., Hamburg, Gerhofstrasse No. 44, sends us the following:

Editors Louisville Medical News:

I intend probably to enter into connection with you in a short time, and therefore I beg you will be so kind to send me several different numbers of your paper, newly published (one of each date), and I foretell you my best thanks.

We comply.

A FATAL case of typhlitis without recognizable symptom is reported in Medical Record by José M. Ferrer, M. D., New York.

Selections.

REMARKS ON A CASE OF SO-CALLED HYSTERIA.—By J. B. Footner, F.R.C.S., in the Lancet: Eight months ago a well-nourished, somewhat anemic woman, of twenty-five, came to me. She said she had recently lost the use of her right thumb, and that her right arm was weaker than the left. She could not account for this. About a year previous she had sores on the right wrist, which took a long time to heal. Her general health was fair. The right arm was not found to be wasted as compared with the left; the muscles of the ball of the thumb were, however, distinctly so, probably from disuse. I treated her by the application of the interrupted current to the muscles of the arm and thumb, and gave her arsenic internally. The arm and thumb soon began to improve under this treatment.

A month after her first visit she reported some sores similar to those of a year ago on the back of her right hand and wrist. These sores presented a peculiar appearance, quite unlike any normal pathological process. They were about three quarters of an inch in length and one quarter of an inch in breadth, longitudinally oval. They resembled very much the appearance produced by a blister with the cuticle entirely removed, and no sign of it left, but only a bare raw surface bathed in serum. There were next to no traces of inflammation. There were four sores similar in size, shape, and appearance, and in the long axis of the limb. I ordered zinc ointment.

She returned in a few days, with the sores no better, but evidently having been irritated. I covered the sores with strapping reaching from below the situation of the sores to above them, as in ulcer of the leg. As she could not get at the sores, they quickly healed, and the strapping was continued a fortnight. The ulcers were very soon reproduced, and also another of exactly similar appearance longitudinally over the insertion of the right deltoid. Strapping was again applied, and continued four weeks, in the hope that by this time the patient would have forgotten about the sores. After this, for a week or two, no ulcerations appeared; but soon she came again, with similar productions round the mouth, just bordering on the lips. It was manifestly impossible to apply strapping here, so lunar caustic was freely rubbed over the raw sur-

faces, hoping that the pain would act as a deterrent, and it did. She continued free from sores after this. Her right arm and thumb are now as strong as the left.

Recently she reappeared with sores on the same wrist as before, for which I am adopting the same treatment. Had this been a hospital case I should probably have been able to discover how the sores were produced; but as she has a father a chronic invalid and a mother just recovering from hysterical paraplegia and aphonia (a bad nervous family history, be it remarked), it was useless to expect any assistance from them, and quite possibly they would not have believed that their daughter was the originator of the sores. I think the best course is to endeavor to outwit the patient.

A very interesting case, at the Northwest London Hospital, of a somewhat similar character is reported by Dr. T. Colcott Fox, in the Lancet of December 30, 1882. In his case the girl confessed that she had produced the sores partly with her nails, but mostly by continual rubbing with the tops of her fingers. It seems probable that the cause in my case is similar. Her right arm being weak, it can be readily imagined that she would use her left arm to produce these phenomena. She is not naturally left-handed.

THE CEPHALALGIA OF ADOLESCENCE.—The *Gazette des Hopitaux* of May 19th notices a recent publication of Dr. René Blache, under the title of *Cephalalgie de Croissance.* This, of course, is no new condition, for most practitioners must have met with examples of it more or less frequently, and have generally given it only the significance of a mere symptom. But for Dr. Blache it constitutes in some cases a definite morbid condition—a special disease of adolescence. It is a persistent cephalalgia, accompanied by various disturbances of the nervous and circulatory systems, more or less fleeting giddiness, and sometimes attempts at vomiting. These may return daily for months, not at the same time of day, but at any time that the patient undertakes intellectual labor of any continuity requiring a certain amount of attention. It has been generally in subjects from ten to eighteen years of age that Dr. Blache has met with this form of cephalalgia, which occurs alike in young boys and girls, but most frequently in the former. The seat of the pain is usually confined to the forehead, but sometimes it corresponds to the whole hairy scalp, from the vertex to a circular line passing on a level with the orbits and mastoid process. The pain is never unilateral, as in true migraine. At the same time a change of disposition takes place, the subject becoming nervous and irritable; but the inaptitude for work is the most constant and uniform symptom. The practitioner in such a case may find himself in a somewhat delicate position; for while, on the one hand, he may have to suspect a simulated affection, all the symptoms of which are subjective, he may, on the other, have to do with only a too real affection. Great attention to the case, a strict surveillance of the young persons who complain of the pains, the persistence of these and their resistance to the usual remedies, will in the end lead to a conviction of the reality of the affection. Its duration is not for a few days only, or even for some weeks, but for months and even years, so that simulation would be difficult indeed. The inaptitude for intellectual labor, so far from being made a pretext for idleness and amusement, often becomes with these young persons a subject of poignant regret. Besides these cases of cephalalgia, which are temporarily produced under the influence of efforts at intellectual work which surpass the strength of the scholar, and which may be regarded as the benign and usual form of the affection, Dr. Blache refers to other cases, in which the cephalalgia is constant, and undergoes exacerbation whenever mental exertion is attempted. Cases of this kind seem to be especially connected with diathetic heredity; and among the cases reported are those of young persons the issue of arthritic or neuropathic parents. Dr. Maurice Perrin, consulted in some of these cases, has offered the opinion that most of the subjects of this cephalalgia suffered from hypermetropia or astigmatism, and that these pains were especially, if not exclusively, attributable to the attempts at accommodation of the eye. But Dr. Blache, while admitting the possible concurrence of these disurbances of vision, has met with cases in which the employment of appropriate glasses exerted no beneficial effect, the cephalalgia being quite independent of the condition of the eyes. Active life in the open air, the use of appropriate glasses when visual trouble exists, and above all the absolute cessation of intellectual labor for a prolonged period, have proved, together with hydrotherapia, the sole means which have given any relief, and sometimes have caused the disappearance of pains which are often so severe as to render existence miserable.—*Medical Times and Gazette.*

HEMOGLOBINEMIA.—Professor Ponfick recently published an interesting article in the *Berliner Klinische Wochen.*, on hemoglobinemia and its consequences. It is known that many agencies have the property of displacing the hemoglobin from the red blood-disks, so that the coloring matter is discharged into the blood-plasma. The transfusion of foreign blood, *i.e.*, blood from a donor of different species to receiver, burns of the surface of the corpuscle, and many chemical substances (pyrogallic acid, arseniuretted hydrogen, potassic chloride, etc.), possess this property. Peculiar as is the bond of connection between the stroma of the red-blood disk and its hemoglobin, yet the union is very easily dissolved. In fact, to prepare hemoglobin from the dog's blood, it is sufficient to add ether, and keep in a cool place, then filter the red mass of crystals thus formed, re-dissolve in water, and re-crystallize. From what has been said, there will be no difficulty in comprehending the full meaning of the term hemoglobinemia. The notions which Ponfick has on the subject may be enumerated in the following fashion: There are different degrees of hemoglobinemia. When this state exists the altered products (of the blood) are disposed of in three directions. The spleen is enlarged with the fragments resulting from the destruction of the blood—that is one direction. The liver secretes an excessive quantity of bile (hypercholia); and, lastly, the *debris* of the decomposition of the blood (implied in the setting free into the blood-plasma of the hemoglobin) is excreted by the kidneys. With limited hemoglobinemia there is neither hemoglobinuria nor icterus. When the hemoglobinemia is greater in degree, some of the coloring matter of the blood appears in the urine, and there are signs of slight and transient jaundice. Profound destruction of the red-blood elements is followed almost instantaneously by intense and prolonged hemoglobinuria (associated with exudative nephritis) as well as marked and severe icterus. Much food for reflection is offered in these scientific speculations by Ponfick. The views promulgated may help to throw light on many morbid phenomena. Good grounds certainly exist for the opinion that the spleen and possibly other organs are concerned in the destruction of the red-blood disks. A further consideration is the fact that the blood is constantly being destroyed and renewed. Now, if there be constantly going on a dissolution of the red-blood elements, it follows that at least a local hemoglobinemia always exists; unless, indeed, we regard the dissolution as always occurring in the solid elements of the tissues concerned. Some physiologists teach that the hemoglobin thus set free is converted, probably by the hepatic tissue, into bilirubin, the principal color constituent of the bile. There is much plausibility in such a view. Indeed, it is very probable that hemoglobin is the source of all the pigments of the body. Granting these considerations, we may conceive how, step by step, an increase in the degree of hemoglobinemia may entail all the consequences which Ponfick has claimed for this excessive destruction of the red-blood disks in the blood circulation. The importance of these plausible conjectures in connection with the explanation of the occurrence of hematinuria and jaundice, which have been so often observed in malignant and septic fevers, is obvious. Again, hematinuria has been met with in purpura and scurvy, also after poisoning by arseniuretted hydrogen or carbonic anhydride, and as a distinct affection, named paroxysmal or intermittent hematinuria. The relations which have been observed to subsist between ague, oxaluria, rheumatism, and this intermittent hematinuria are well worth remembering at this time. If the enlargement of the spleen in ague coincide with the excessive production of hemoglobinemia we might expect some corresponding evidence of the excessive production of blood pigment. It would perhaps require no great ingenuity of argument to harmonize these considerations with the facts observed in acute and chronic malarial poisoning. Hemoglobinemia may be looked upon also as the precursor of icterus in the form which has been known as hematogenous jaundice. The actual coexistence of hemoglobinuria and icterus is spoken of by Ponfick, and he believes that the hemogolobin passes over unchanged in the urine when the liver is incapable of converting it into bilirubin, the power which the liver has in this direction being limited.—*Medical Times and Gazette.*

SOME CURIOUS LOCAL NERVOUS MANIFESTATIONS.—Professor Charcot says (Birmingham Medical Review), that it is well known how a blow, or pressure, or other local cause, may determine the development of some manifestation of a diathetic disorder, such as rheumatism, gout, or syphilis; but it is not so well known that the local phenomena of hysteria manifest themselves in the same way under similar in-

fluences. This important fact was recognized by Sir B. Brodie, who has illustrated it by cases in his lectures on Local Nervous Affections. "In a case," says Brodie, "which is of no infrequent occurrence, a young woman pricks her finger, or perhaps the finger is merely pinched. Soon afterward she complains of pain extending from the finger upward along the hand and fore-arm. This probably is followed by a convulsion, contraction of the muscles of the arm, or by a continued contraction of the flexor muscles on the anterior part of the arm, so that the fore-arm is kept permanently bent; at least while the patient is awake, for the spasm is generally relaxed during sleep."

Professor Charcot relates a case in which spasmodic contraction of the wrist and hand followed an injury to the back of the hand from falling against a stool. There was complete anesthesia of the whole hand, wrist, and lower half of the fore-arm. She was seen in consultation six weeks after the accident, and five days later the hand recovered spontaneously.

In another case the squeeze of the right fore-arm, causing some swelling and ecchymosis, was followed by severe pain, especially on attempts at motion, with rigidity of the hand, the two proximal phalanges of the four inner digits being fixed at an obtuse angle, and the distal phalanges extended. The contraction disappeared suddenly, and was followed by complete paralysis of motion and sensation affecting the whole upper extremity, and later on this extended to the lower extremity, though the paralysis of motion was less complete. There was complete right hemi-anesthesia affecting common and special sensation, including vision and smell, and there was marked tenderness in the right ovarian region. From this time a number of hysterical symptoms manifested themselves—dyspnea, vomiting, convulsive cough, retention of urine, etc.

The usual symptoms of traumatic local hysteria are, (1) exquisite cutaneous hyperesthesia; (2) deeper pains in the course of nerve trunks or in the interior of joints; (3) contractions. These symptoms do not remain limited to the part affected, but may extend to the whole limb. They are liable to spontaneous exacerbations, during which there may be, in addition, swelling, redness, and elevation of temperature.

Such symptoms are usually the first indication of the hysterical diathesis, hitherto latent. When ovarian hysteria is fully developed, mechanical injuries no longer appear to produce these effects.

The diagnosis of such cases is always difficult, and the treatment should be, as far as possible, negative. Blisters and cauteries, galvanization and faradization, prolonged rest, and attempts at reduction, etc., are generally all productive of more harm than good.

THE PATHOLOGY AND RADICAL CURE OF HAY FEVER OR HAY ASTHMA.—Dr. Roe claims that recent investigations show that the special cause for hay fever does not alone reside in a special peculiarity of a special irritant, which affects certain individuals in a peculiar manner, but in a special susceptibility of the tissue of the nasal passages of some individuals to be irritated by these substances when brought in contact with it; that the susceptibility of this tissue is occasioned by disease either latent or active; that the removal of this diseased tissue will remove the susceptibility to irritation by these substances; and that the train of symptoms, which appears to be more or less of a constitutional nature, producing the asthmatic and nervous symptoms which have led to the classification of the affection as a neurosis, is but the result of the irritation of the Schneiderian mucous membrane, which is reflected to other parts and organs, through the agency of the sympathetic nervous system, causing irritation in these organs, which is augmented by the consequent obstruction to nasal respiration during the attack.

Covering the inferior turbinated bones and the lower part of the septum there is a highly vascular erectile tissue analogous to the cavernous tissue of the genital organs. (Bigelow). This vascular erectile tissue is directly under the control of the vaso-motor nerves, and is exceedingly sensitive to impressions applied not only locally to the part, but to other portions of the body. Often it may be noticed that a draft of cold air striking another portion of the body will cause this tissue to become engorged sufficiently to occlude one or sometimes both nostrils.

Sometimes slight disease or hypertrophy of this tissue, and not sufficient to give the patient any special annoyance, will increase its susceptibility to irritation to a marked degree; and it is the irritation reflected from this tissue, through the sympathetic nerves to other parts and organs, which is the excitor

of the varied and distressing symptoms complained of by hay-fever sufferers.

It is proved by experiments on animals that violent irritation of the Schneiderian mucous membrane will induce, through the sympathetic nerves, congestion and irritation in the larynx and lungs similar, though in a less degree, to the derangements induced in the lungs by irritation of the larynx. The conclusion that hyperesthetic tissue of the nasal passages sustains a certain relation to the causation of hay fever has been reached in a natural manner by observing from time to time that patients who were under treatment for nasal diseases, and who also suffered severely from hay fever during the summer months, were relieved, or their attacks lessened in severity, in proportion as these diseased conditions in the nasal passages were removed; and that in cases where this hypertrophied turbinated tissue was removed altogether the patient became entirely exempt from subsequent attacks.

It has been observed, furthermore, that in every instance in those who were subject to hay fever more or less disease or hypertrophy of this tissue existed.

For treatment Dr. Roe recommends the removal of the hypertophied tissue with galvano-cautery or the Jarvis snare. For galvano-cautery a small electrode is recommended, burning but a little at each introduction. Vaseline warmed and thrown into the nostrils with a spray-tube immediately after the operation, and until the slough separates and the parts are healed, will almost invariably prevent inflammatory complications. Aqueous solutions for spray should not be used.

TETANUS TERMINATING IN RECOVERY.—Dr. Ransom relates this case. J. B., aged sixteen, strong and well grown, on March 24, 1883, ran the prong of a garden-fork through his left great toe. His mother applied common salt first, and afterward bread-poultice. On April 5th, the toe being healed, symptoms of tetanus began in the neck and jaws. On April 8th, there was tetanus, the pectoral and abdominal muscles were characteristically rigid, and clonic spasms occurred about every ten or fifteen minutes. There was no difficulty in deglutition; temperature 99°; skin sweating. He was ordered to be kept quiet in a darkened room, to take freely of light nourishment, and five grains of chloral hydrate with ten grains of bromide of potassium every four hours. He got worse for a week, but took food freely. He then began to improve, and on May 11th was quite well. When the patient was convalescent, but the pectoral and abdominal muscles still rigid, the leg-muscles being flaccid, the plantar reflex was tried, and was found normal. No other superficial reflex could be obtained. The patella-tendon reflex, tried under the same conditions, was greatly exaggerated, and ankle-clonus was easily obtained. *Tache cérébrale* was readily produced. After the patient was well, the patella reflex was normal, and neither ankle-clonus or *tache cérébrale* could be obtained. Dr. Ransom had not been able to find any previous record of the condition of the reflexes in tetanus.—*British Medical Journal.*

ALKALOIDS OF DECOMPOSITION, (from report of the Congress of German Surgeons, by Roswell Park, M.D., in Annals of Anatomy and Surgery). Maas (Wurzburg) has been pursuing studies on this topic, following those made by Thiersch, Bergmann, Brieger, and others. After treating masses of decomposing flesh with ether, chloroform, and amylic alcohol, he isolated three different vegetable alkaloids; these, when injected into living animals, showed the following effects, the first caused tetanic spasm, the second acted like morphine, and the third like strychnine. The possibility of a form of septicemia from the absorption of these alkaloids generated during an unhealthy wound-process was alluded to in the discussion.

THE MICROCOCCI OF ERYSIPELAS were demonstrated by Fehleisen (of Bergmann's Berlin Clinic). A patient had been inoculated forty-five hours previously, and when showed displayed a typical erysipelas. The micrococci which had been here implanted were the product of more than thirty generations cultivated on gelatine, and could be considered entirely free from extraneous matter or germs. Of eight thus inoculated, only one failed to show typical results. The last trial in April was just as successful as the first during the previous August, and with the same culture. The one person on whom the experiment failed had suffered from an idiopathic attack but a short time before.—*Ibid.*

TREATMENT OF WOUNDS BY SUBNITRATE OF BISMUTH.—Riedel (Aix) reported the results of his trials of Kocher's new method

of treating wounds, which were for the most part favorable, though he thought bismuth had no virtues as against erysipelas, but rather the contrary, since eight patients out of sixty-one suffered from it. After combining sublimate with it he had no further trouble. In the discussion Kocher said that, so far as he had studied the subject, the bismuth did not directly affect the micrococci—of erysipelas, for instance—but rendered their usual nourishment unfit for their support, by forming a bismuth albuminate in which they could not grow. Kocher also stated that he had observed both nephritis and enteritis as a result of bismuth poisoning.—*Ibid.*

BALL OF HAIR IN THE STOMACH.—Schoenborn (Königsberg) exhibited a specimen removed from the stomach of a girl who had suffered for two years. A tumor of the size of a fist could be felt in the gastric region, the same being painful on pressure. The diagnosis as between a tumor of the spleen or of the omentum was uncertain. Upon operation, it was found to lie in the stomach, whence it was removed. Incision of the tumor showed it to consist of short hairs matted together. It afterward transpired that this girl, with a number of her schoolmates, "*in order to gain a clear voice*," was in the habit of biting off her hair and swallowing the ends thus bitten off. The case is not unique. Seven similar cases are recorded, one of which was complicated by a second similar mass in the intestine; but all the others ended fatally—one from hemorrhage of the stomach, the others from peritonitis, or incurable vomiting. Some of these patients had swallowed the hairs in their full length.—*Ibid.*

STATISTICS AND OPERATIVE TREATMENT OF CANCER OF THE RECTUM.—Heuck (Heidelberg) reported forty-three cases of this nature in Czerny's clinic since 1877; twenty-nine of them in patients of ages from forty to sixty. Thirty of them were in males. Forty-two of them were cancers, involving the whole circumference of the mucous membrane, or almost the whole; one was an epithelial growth about the anus. The exact microscopical structure could not be found to bear any definite relation to the clinical features of the cases. The inguinal glands were not earlier affected than those nearer the rectum, as Winiwarter had claimed—only so when the tumor involved first the anus. Twenty-five of the cases were operated on according to Volkmann's method; of these one died from the operation. Eleven of them are still living, nine without any rectum. Nothing of the anal border or of the mucous membrane should be allowed to remain, because these fragments are first to show signs of recurrence—this at least was Czerny's experience.—*Ibid.*

THE TREATMENT OF SYPHILITIC ULCERS OF THE RECTUM.—Hahn (Berlin) regarded it as doubtful whether the so-called syphilitic ulcers of the rectum were peculiarly syphilitic. Up to the present time gummy deposits were found in connection with but very few of these cases, and condylomata were very rare. Concerning their treatment, he recommended colotomy in those cases where, in spite of most careful local measures, no improvement was manifest, and where patients wasted away on account of the great and constant suppuration. He had made the operation in eight such cases, and in several of them with brilliant results.

Küster had resorted to this measure in one case, and had practiced frequent irrigation from the artificial opening through the anus. This patient recovered from the ulceration, but succumbed to an effort to close the lumbar opening. Esmarch suggested making a "sphincterotomy."—*Ibid.*

THE SIGNIFICANCE OF DOUBLE SCIATICA.—Professor Charcot insists that double sciatica is always symptomatic, and the causes are diabetes, certain spinal diseases, for example, locomotor ataxy and meningomyelitis, and some alteration in the nerves themselves. It is important to note that the presence of double sciatica in cancerous patients indicates metastasis and contraindicates operative interference. Conversely, severe neuralgic pains in patients at the age for cancer should suggest a careful examination of the breasts, the stomach, and the uterus. Such pseudo-neuralgic pains are the ordinary clinical signs of vertebral cancer; but a fungous mass may project from the spine, in which case the vertebræ will be infiltrated, and the consequences will be similar to those of Pott's disease.

A CASE of extra-uterine pregnancy of seven years' standing, with discharge of the fetal skeleton by the rectum, is reported by M. H. De Boiston, in *La Progres Médical*, June 30th.